

5 a rotor rotatably positioned around said stator, said rotor being rotatably carried by said bearings; and

a machine actuator having a functional part with a short circuit arrangement associated with said rotor for operating said actuator.

18. The electric motor drive of claim 17, wherein said short circuit means is said rotor.

19. The electric motor drive of claim 17, further comprising a conveyor driving roll, wherein said functional part is said conveyor driving roll.

20. The electric motor drive of claim 17, further comprising:

A1 a conveyor driving roll, said functional part being said conveyor driving roll;

a plurality of short circuiting bars; and

5 a plurality of rings, said short circuiting bars and said rings being arranged integral with said rotor;

wherein said short circuiting bars and said rings are said short circuit arrangement.

21. The electric motor drive of claim 17, wherein said non-rotary shaft is hollow and is configured for the flow in an axial direction therethrough of a cooling fluid including at least over-press air.

22. The electric motor drive of claim 17, further comprising hollow short circuit conductors configured for the flow therethrough of a cooling fluid including at least over-press air, said hollow short circuit conductors are said short circuit means.

23. The electric motor drive of claim 17, wherein said rotor is an electrically conductive compound metal structure including at least copper short circuit conductors which are attached to said rotor by one of explosive welding, butt welding into holes in said rotor and integral with the casting of said rotor.

24. The electric motor drive of claim 17, wherein said stator includes a winding, and further comprising star type couplings utilized in said winding of said stator, wherein said winding includes one of a three pole stator winding, a four pole stator winding and a six pole stator winding, wherein said motor has a power output from approximately 0.5 kilowatt to approximately 500.0 kilowatt, and wherein said motor has a rotational speed of approximately 0 rpm to approximately 20,000 rpm.

25. The electric motor drive of claim 17, further comprising:

A 1 a frequency transformer drive; and

an active rotation speed control.

26. The electric motor drive of claim 17, further comprising:

5 a stationary vacuum box; and

at least one supporting bracket being attached to said stationary vacuum box, said non-rotary shaft being attached to said at least one supporting bracket;

5 wherein said rotor is configured as a shell of a vacuum belt conveyor pulley.

27. The electric motor drive of claim 26, wherein said at least one supporting bracket is configured to have at least one connection surface configured to hold at least one of knife plates, rotary rippers and choppers.

28. The electric motor drive of claim 26, wherein said plurality of bearings include a first bearing and a second bearing, a distance D being defined as the distance therebetween, that the length of said vacuum belt conveyor pulley defines a length L; wherein D is larger than L.

29. The electric motor drive of claim 28, further comprising at least two flanges, one of said flanges connecting said first bearing to said rotor and an other flange connecting said second

bearing to said rotor, said first bearing and said second bearing being bushings which bridge the distance between length L and distance D.

30. The electric motor drive of claim 26, wherein each said at least one supporting bracket is formed double-folded similar to a "Z".

31. A method of constructing an electric motor drive comprising the steps of:

mounting a stator on a non-rotary shaft;

positioning a rotor around said stator;

connecting said rotor to said non-rotary shaft with bearings; and

incorporating a short circuit arrangement into said rotor;

wherein said rotor is configured as a functional part of a machine actuator.

32. The method of claim 31, wherein said short circuit arrangement is a plurality of rings and a plurality of short circuiting bars, said plurality of rings and said plurality of short circuiting bars arranged at least partially internal to said rotor;

33. The method of claim 31, further comprising the steps of:

cooling said electric motor drive with a cooling fluid including at least one of over-pressure air; and

directing said cooling fluid, said non-rotary shaft being hollow, said cooling fluid being so directed through at least one of said hollow non-rotary shaft and hollow short-circuit conductors.

34. The method of claim 31 further comprising the step of forming said rotor into an electrically conductive compound metal structure including at least copper short circuit conductors which are attached to said rotor by one of explosive welding, butt welding into holes in said rotor and integral with the casting of said rotor.

35. The method of claim 31, further comprising the steps of:

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forming said rotor as a shell of a vacuum belt conveyor pulley;  
providing a stationary vacuum box;  
attaching at least one supporting bracket to said stationary vacuum box; and  
attaching said non-rotary shaft to said at least one supporting bracket.

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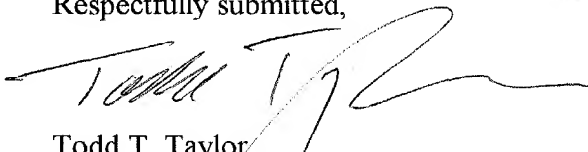
IN THE ABSTRACT

Please delete any previous abstract and substitute the attached new abstract.

REMARKS

Should any question concerning any of the foregoing arise, the Examiner is invited to telephone the undersigned at (219) 897-3400.

Respectfully submitted,



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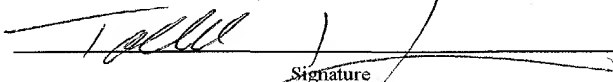
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